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Non-Significant Differences Documentation

Camp Allen Landfill Site 1
Naval Station Norfolk, Norfolk Virginia

Prepared For:

Department of the Navy
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia

Under the

LANTDIV CLEAN Program

Comprehensive Long-Term
Environmental Action Navy

Baker

FOSTER WHEELER
FOSTER WHEELER ENVIRESPONSE, INC.

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NON-SIGNIFICANT DIFFERENCES DOCUMENTATION

CAMP ALLEN LANDFILL
NAVAL STATION NORFOLK, NORFOLK VIRGINIA

CONTRACT TASK ORDER 0353

August 20, 2002

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Prepared by:

BAKER ENVIRONMENTAL, INC.
Virginia Beach, VA

1.0 INTRODUCTION TO THE SITE AND STATEMENT OF PURPOSE

This document presents a written description of the non-significant differences to the final Selected Remedy at the Camp Allen Landfill (CAL), Naval Station Norfolk, Norfolk, Virginia, and acts as an addendum to the original Decision Document signed August 14, 1995. The lead agency for the CAL is the United States Department of the Navy (Navy); support agencies include the United States Environmental Protection Agency (USEPA) and the Virginia Department of Environmental Quality (VDEQ). The CAL (also referred to as Site 1) is located approximately one mile east of Hampton Boulevard and one mile south of Willoughby Bay on Naval Station Norfolk, Norfolk, Virginia.

The CAL Decision Document outlined the Navy's planned response to contaminated groundwater, soil, and sediment. The selected remedy included groundwater treatment, monitoring, and institutional controls impacting land usage at the site. Since the publication of the Decision Document, the Navy expects that land use at the site will be expanded beyond the restrictions set forth in the selected remedy, specifically including the Virginia Department of Transportation's (VDOT) plans to construct the I-564 Intermodal Connector in an area just to the north of the CAL. VDOT's planned dewatering from construction activities will impact the groundwater plume for the CAL. However, the dewatering is not anticipated to reduce the overall effectiveness of hydraulic containment of the plume. Construction activities also have the potential to impact the groundwater institutional controls in place at the CAL, prompting the need for new construction restrictions on the property.

Additionally, the Camp Allen Treatment Plant (CATP) will be used to treat groundwater encountered during VDOT's on-site dewatering activities for utility and roadway construction. The CATP is a groundwater remediation system constructed as part of the final selected groundwater remedy at the CAL, which collects, treats, and discharges groundwater to a drainage ditch flowing to nearby Bousch Creek. The expanded use of the CATP from these activities will require modifications to the CATP to address sediment loading and increased monitoring and modeling to assure continued capture of the CAL groundwater plume. These differences to the originally selected remedial action are consistent with the overall strategy of the original selected remedy, and will not result in a reduced level of protectiveness or long-term effectiveness.

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §117(c) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) §300.435 (c)(2)(i), this written statement will become a part of the Administrative Record and will be made available to the public. The Decision Document, Final Proposed Remedial Action Plan, Remedial Investigation/Human Health Risk Assessment, and Feasibility Study are also available in the Administrative Record. The information repositories for the Administrative Record are maintained at the location listed below:

Kirn Memorial Branch
Norfolk Public Library
301 East City Hall Avenue
Norfolk, VA 23510
757-664-7323

2.0 SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

2.1 Site History

During the early 1940s, landfilling operations commenced in the Camp Allen area. Disposal activities continued until about 1974 in two primary areas, designated as Area A and Area B. Area A of the CAL is a 45-acre site that was used for the disposal of wastes from the early 1940s to 1975. During this time, significant quantities of municipal, solid, and hazardous wastes were disposed of including general refuse, demolition debris, sludges from metal plating processes, parts cleaning and paint stripping operations, overage chemicals, various chlorinated organic solvents, acids, caustics, paints and paint thinners, pesticides and asbestos. In the mid-1940s, an incinerator was constructed in the southern portion of the Camp Allen area to burn combustible wastes. This incinerator operated until the mid-1960s. Materials too bulky for the incinerator were buried in Area A of the CAL. Area B, the eastern portion of the CAL, received wastes from a 1971 fire at the adjoining Camp Allen Salvage Yard (CASY).

At present, the majority of the CAL is covered with soil and grass to minimize surface erosion. Area A incorporates the Navy Brig facility and a heliport built over a portion of the landfill during the mid-1970s. A residential area, Glenwood Park, is located to the west of the site, off of government property.

In 1997 Naval Station Norfolk was placed on USEPA's National Priorities List (NPL). The Navy and EPA then signed a Federal Facilities Agreement (FFA) in 1999 for Naval Station Norfolk. The FFA identified specific requirements that the Navy, USEPA, and VDEQ must follow in terms of managing Installation Restoration (IR) sites at the Naval Station. The CAL (Site 1) and the CASY (Site 22) were two of the ten IR sites identified in the FFA and administered through the Navy's IR program following the provisions and requirements of CERCLA as amended by the Superfund Amendments and Reauthorization Act (SARA) in 1989. Changes to sites with a remedy in place (such as Site 1), as well as investigations and remedial actions that occur at the Navy's IR sites must comply with the requirements of the FFA and any other applicable Record of Decision (ROD) or Decision Document.

2.2 Contaminants of Concern at Camp Allen Landfill

Cleanup goals for the selected remedy were developed to address the contaminants of concern (COCs) in both the Yorktown (deep) and the Columbia (shallow) groundwater aquifers at the CAL. COCs included the following volatile organic chemicals (VOCs) for both media of concern: 1,2-dicholoroethane, 1,2-dichloroethene(cis), 1,1,1-trichloroethane, benzene, ethylbenzene, tetrachloroethene, toluene, trichloroethene, vinyl chloride, and xylenes. Separate cleanup goals were established for VOCs in the Yorktown and Columbia aquifers. Though identified as preliminary COCs in the Camp Allen Landfill Remedial Investigation, groundwater cleanup levels for metals were not required, as metals detected in the groundwater were believed to be associated with total suspended solids present in wells and not representative of actual groundwater contamination.

2.3 Selected Groundwater Remedy

Contamination at the CAL was addressed in the Decision Document according to the area groupings (Areas A and B) described in Section 2.1. VDOT's planned construction activities requiring dewatering activities will impact the groundwater within the CAL VOC plume. The selected groundwater remedy for this area is described below.

Groundwater from the Yorktown Aquifer underlying the site is extracted through a series of mid-depth (approximately 65 feet), and shallow depth (approximately 25 feet) extraction wells that pump groundwater to the CATP. The treatment system, which is capable of removing both metals via clarification/filtration, and volatile organics via air stripping and carbon adsorption, is sized to accommodate groundwater flows from each of the Areas of the CAL (A1, A2, and B). A

groundwater-monitoring program is also used to assess trends in groundwater quality over time and to evaluate the effectiveness of the groundwater extraction and treatment system. The evaluation of the effectiveness of the treatment system includes monitoring the zones of hydraulic influence of both the deep and shallow extraction wells. This monitoring ensures that contaminated groundwater is being contained by the extraction well system and is not migrating beyond the Navy's property boundary. Institutional controls have also been implemented to limit exposure to, and the use of groundwater; and to limit the area to non-residential land uses.

3.0 BASIS OF DOCUMENT

This document addresses potential impacts to the selected groundwater remedy at the CAL from VDOT's plan to construct the I-564 Intermodal Connector. It is anticipated that construction activities associated with VDOT's I-564 Intermodal Connector project will impact the northern boundary of the CAL and CASY. Construction activities may additionally breach current institutional controls for containing contaminated soils and groundwater, and could cause an increased potential for the migration of the contaminated groundwater plume beyond the Navy's property boundaries.

VDOT is also requesting the use of the CATP to treat groundwater drawn from the shallow aquifer for dewatering processes during the construction of I-564. Due to the potential infringement on institutional controls and the use of groundwater from the aquifer under the CAL and CASY, construction workers may have an increased risk of exposure to contaminated soils and groundwater. VDOT has assumed responsibility for these eventualities and will be financially responsible for them and for any modifications to the CATP.

The basis for modification of the selected remedy outlined in the original Decision Document is cited in the *Final Technical Memorandum Construction Restrictions for Navy Property* dated February 25, 2002 and is included in the Naval Station Norfolk Administrative Record file. Additionally, meetings were held between the Navy and VDOT to discuss the dewatering requirements for the I-564 Intermodal Connector project.

4.0 DESCRIPTION OF DIFFERENCES

Table 1 provides an outline of the non-significant changes anticipated in response to planned construction activities in the vicinity of the site.

Roadway construction has the potential to impact the institutional controls and land use restrictions set forth as part of the original selected remedy for soils. VDOT has stated that the planned roadway construction and related utilities relocation will require groundwater dewatering activities that may have the potential to cause migration of the contaminated groundwater plume. Construction and excavation activities along the northern edge of the CAL and the CASY may encounter shallow groundwater as well, as the water table can be encountered at depths of 4 to 6 ft below ground surface. The Navy's *Final Technical Memorandum Construction Restrictions for Navy Property* outlines that it will be VDOT's responsibility to monitor and model the groundwater plume, to ensure that hydraulic containment of the plume is maintained, to characterize any groundwater encountered, to ensure that the capacity of the CATP is not exceeded, and to address all health and safety issues related to groundwater exposures at the site. Additionally, VDOT will be financially responsible for any modifications to the CATP, including any modifications caused by increased sediment loads in the groundwater accepted by the CATP.

The Navy is of the opinion that these construction restrictions will insure that the selected groundwater remedy remains protective of human health and the environment, and will allow the Navy to maintain the institutional controls for groundwater identified in the CAL Decision Document.

Table 1
Comparison of Groundwater Remedy and Differences
Camp Allen Landfill

Selected Remedy	Difference
• Maintenance of groundwater plume	• Possible migration of contaminated groundwater plume into other areas of the site • Potential exposure to construction workers
• Defined groundwater pumping rate	• Potential increased load for CATP • Potential increased sediment loads in groundwater sent to CATP causing potential increase in O&M costs

5.0 STATUTORY DETERMINATIONS

The selected groundwater remedy satisfies the statutory requirements of CERCLA Section 121, as it remains protective of human health and the environment, is in compliance with all ARARs, is cost-effective, and as it uses permanent solutions and treatment technologies to the maximum extent practicable. The selected groundwater remedy addresses all contaminants of concern impacting groundwater at the site. In addition, the construction restrictions for groundwater that the Navy will require VDOT to meet will allow the Navy to maintain existing institutional controls for groundwater.